(FILE 'HOME' ENTERED AT 17:16:24 ON 10 JUN 2003)

FILE 'MEDLINE, CANCERLIT, BIOSIS, EMBASE, BIOTECHDS' ENTERED AT 17:16:42
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L1	2017880	S	PURIFIED OR ISOLATED
L2	2127	S	100K OR 100 K
L3	423	S	L2 AND L1
L4	46	S	L3 AND ADENOV?
L5	19	DUP REM	L4 (27 DUPLICATES REMOVED)
L6	3943723	S	NUCLEIC OR NUCLEOTIDE OR DNA OR GENE
L7	464	S	L6 AND L2
L8	118	S	L7 AND ADENOVI?
L9	49	DUP REM	L8 (69 DUPLICATES REMOVED)

L5 ANSWER 13 OF 19 MEDLINE DUPLICATE 8
AN 80163062 MEDLINE
DN 80163062 PubMed ID: 6988609
TI Purification and preliminary immunological characterization of the type 5 **adenovirus**, nonstructural 100,000-dalton protein.
AU Oosterom-Dragon E A; Ginsberg H S
SO JOURNAL OF VIROLOGY, (1980 Mar) 33 (3) 1203-7.
Journal code: 0113724. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198006
ED Entered STN: 19900315
Last Updated on STN: 19970203
Entered Medline: 19800625
AB The nonstructural 100,000-dalton (**100K**) protein of type 5 **adenovirus** was **isolated** and **purified** from infected KB cells by a combination of ion-exchange and affinity chromatographies. Rabbit antiserum containing specific **100K** protein antibodies was used for indirect immunofluorescence examination of cells infected with wild-type virus, **100K** mutants, and hexon mutants. The **100K** protein, which is synthesized as a late protein, was observed primarily in the cytoplasm of cells infected with wild-type and mutant viruses.

L9 ANSWER 48 OF 49 MEDLINE
AN 76072245 MEDLINE
DN 76072245 PubMed ID: 172661
TI Block to multiplication of **adenovirus** serotype 2 in monkey cells.
AU Klessig D F; Anderson C W
SO JOURNAL OF VIROLOGY, (1975 Dec) 16 (6) 1650-68.
Journal code: 0113724. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 197603
ED Entered STN: 19900313
Last Updated on STN: 19970203
Entered Medline: 19760301
AB The block to **adenovirus** 2 (Ad2) multiplication in monkey cells can be overcome by coinfection with simian virus 40 (SV40). To identify this block we have compared the synthesis of Ad2 proteins in monkey cells infected with Ad2 alone (unenhanced) or with Ad2 plus SV40 (enhanced). Synthesis of viral proteins in enhanced cells was virtually identical to that found for permissive infection of human cells by Ad2 alone. In contrast, the unenhanced cells were strikingly deficient in the production of the IV (fiber) and 11.5K proteins whereas the synthesis of **100K** and IVa2 was normal. Synthesis of a number of other proteins such as II, V, and P-VII was partially reduced. A similar specific reduction in synthesis of these proteins was found when their messages were assayed by cell-free translation. This result suggests that the block to Ad2 protein synthesis is at the RNA level rather than with the translational machinery of monkey cells. Analysis of the complexity and the concentration of Ak2-specific RNAs, using hybridization of restriction endonuclease fragments of the Ad2 genome to increasing concentrations of RNA, shows that although all species of late Ad2 mRNA are present, the concentration of several species is reduced sevenfold or more in unenhanced monkey cells as compared with enhanced cells. These species come from regions of the genome known to encode the deficient proteins. A model for the failure of **adenovirus** to multiply in monkey cells, based on abnormal processing of specific **adenovirus** messages, is presented.

transport.

L9 ANSWER 41 OF 49 MEDLINE DUPLICATE 29
AN 82192570 MEDLINE
DN 82192570 PubMed ID: 6281456
TI Physical mapping of **adenovirus** type 2 temperature-sensitive mutations by restriction endonuclease analysis of interserotypic recombinants.
AU D'Halluin J C; Cousin C; Boulanger P
SO JOURNAL OF VIROLOGY, (1982 Feb) 41 (2) 401-13.
Journal code: 0113724. ISSN: 0022-538X.
CY United States
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
EM 198207
ED Entered STN: 19900317
Last Updated on STN: 19900317
Entered Medline: 19820722
AB The genome structures of about 100 interserotypic ts recombinants produced in crosses between human **adenovirus** type 2 (H2) and 5 (H5) temperature-sensitive mutants were analyzed by cleavage with restriction endonucleases to determine the map coordinates of the following temperature-sensitive mutants: penton base plus fiber-defective H2 ts103, -104, and -136, assembly-defective H2 ts112, fiber-defective H2 ts125, hexon-defective H2 ts118 and -121, and **DNA**-negative H2 ts111. H5 ts1 (**100 K** defective), H5 ts36 (**DNA** negative), H5 ts125 (mutated in the early 72,000-dalton protein), H5 ts22 (fiber defective), H5 ts58 (IIIa defective), and H5 ts18 and -19 were used as one of the parents. The physical locations of the H2 temperature-sensitive mutations thus defined are discussed in relation to the genetic map, the biological function altered, and the positions of the structural genes on the genome.

L9 ANSWER 24 OF 49 MEDLINE DUPLICATE 16
AN 90272433 MEDLINE
DN 90272433 PubMed ID: 2349115
TI **Nucleotide** sequence of the region coding for **100K** and 33K proteins of human enteric **adenovirus** type 41 (Tak).
AU Slemenda S B; Pieniazek N J; Velarde J Jr; Pieniazek D; Luftig R B
CS Department of Microbiology, Louisiana State University Medical Center, New Orleans 70112-1393.
SO NUCLEIC ACIDS RESEARCH, (1990 May 25) 18 (10) 3069.
Journal code: 0411011. ISSN: 0305-1048.
CY ENGLAND: United Kingdom
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-X52532
EM 199007
ED Entered STN: 19900810
Last Updated on STN: 19900810
Entered Medline: 19900711

L9 ANSWER 14 OF 49 MEDLINE
AN 1998182589 MEDLINE
DN 98182589 PubMed ID: 9522122
TI **Nucleotide** and amino acid sequence analysis of the **100K** protein of a serotype 3 porcine **adenovirus**.
AU McCoy R J; Sheppard M; Johnson M A
CS Commonwealth Scientific and Industrial Research Organisation, Division of Animal Health, Australian Animal Health Laboratory, Geelong, Victoria, Australia.
SO DNA SEQUENCE, (1997) 8 (1-2) 59-61.
Journal code: 9107800. ISSN: 1042-5179.
CY Switzerland
DT Journal; Article; (JOURNAL ARTICLE)
LA English
FS Priority Journals
OS GENBANK-U82628
EM 199805
ED Entered STN: 19980514
Last Updated on STN: 19980514
Entered Medline: 19980507
AB The genomic region between map units 69 and 78 of a type 3 porcine **adenovirus** (PAV3) was sequenced and analysed. An open reading frame (ORF) of 2514 nucleotides encoding a polypeptide of 838 amino acids and approximately 94.1 kDa was found. The size and location of the ORF suggested it was the PAV3 homologue of the **100K gene** and this was confirmed by **nucleotide** sequence comparison with the **100K** of human **adenovirus** type 2. Amino acid sequence alignment of the predicted polypeptide with the sequences of the **100K** proteins of four human **adenoviruses** and type 10 fowl **adenovirus** revealed sequence identities of between 31% and 52%. Although amino acid conservation was present throughout the entire sequences compared, lower identity was noted in both the amino- and carboxy-termini.

L9 ANSWER 11 OF 49 BIOSIS COPYRIGHT 2003 BIOLOGICAL ABSTRACTS INC.
AN 1998:432788 BIOSIS
DN PREV199800432788
TI Cloning and sequence characterization of L4 nonstructural **100K** protein **gene** of egg drop syndrome virus.
AU Li, Maoxiang; Jin, Qi (1); Zhang, Jigang; Zong, Liyu; Yao, Ermei (1); Yin, Zhen; Hou, Yunde (1)
CS (1) State Key Lab. Mol. Virol. Genet. Eng., Beijing 100052 China
SO Virologica Sinica, (June, 1998) Vol. 13, No. 2, pp. 160-165. ISSN: 1003-5125.
DT Article
LA Chinese
SL Chinese; English
AB The **nucleotide** sequence and location of the L4 nonstructural **100 K** protein **gene** of the egg drop syndrome virus (EDSV), a strain AA-2 previously isolated from China, were mined. The **100K** protein **gene** located at 55.7-64.8 m. u. has a length of 2091 nt and codes for a polypeptide of 696 amino acids (aa) with a molecular weight of 77.7 kD. Comparison of the amino acid sequence of the **100K** proteins from human **adenoviruses** and fowl **adenoviruses** of group I revealed a homology from 32.3% to 34.4%. Remarkably, EDSV **100K** protein shares high homology (56.4% on amino acid level) with that of ovine **adenovirus**.

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L8	118	S	L7 AND ADENOVI?

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L6: Entry 9 of 14 File: USPT Dec 11, 2001

US-PAT-NO: 6328958
DOCUMENT-IDENTIFIER: US 6328958 B1

TITLE: Deleted adenovirus vectors and methods of making and administering the same

DATE-ISSUED: December 11, 2001

INVENTOR-INFORMATION:

NAME	CITY	STATE	ZIP CODE	COUNTRY
Amalfitano; Andrea	Durham	NC		
Chen; Yuan Tsong	Chapel Hill	NC		
Hu; Huimin	Memphis	TN		

US-CL-CURRENT: 424/93.2; 435/320.1, 435/455, 435/91.4, 514/44

CLAIMS:

That which is claimed is:

1. A method of treating a subject with a lysosomal acid .alpha.-glucosidase deficiency comprising administering a biologically-effective amount of a propagation-efective adenovirus encoding a lysosomal acid .alpha.-glucosidase to the liver of the subject, wherein the liver expresses and secretes the encoded lysosomal acid .alpha.-glucosidase, which is transported to a muscle tissue in a therapeutically-effective amount.

2. The method of claim 1, wherein the adenovirus encodes a lysosomal acid .alpha.-glucosidase precursor protein.

3. The method of claim 1, wherein the adenovirus vector is selected from the group consisting of AdhGAA.DELTA.pol, Ad/EF1-.alpha./hGAA.DELTA.pol, Adh5'sGAA.DELTA.pol, Ad/EF1-.alpha./h5'sGAA.DELTA.pol, AdhGAA.DELTA.pp, Ad/EF1-.alpha./hGAA.DELTA.pp, Adh5'sGAA.DELTA.pp, Ad/EF1-.alpha./h5'sGAA.DELTA.pp.

4. The method of claim 1, wherein the adenovirus is administered to the liver by a method selected from the group consisting of intravenous administration, intraportal administration, intrabiliary administration, intra-arterial administration, and direct injection into the liver parenchyma.

5. The method of claim 1, wherein the subject is a mammalian subject.

6. The method of claim 5, wherein the subject is a human subject.

7. The method of claim 1, wherein the adenovirus is administered to the liver by intravenous administration.

8. A method of treating a subject with lysosomal acid .alpha.-glucosidase deficiency, comprising administering to the subject a therapeutically-effective amount of a propagation-defective adenovirus comprising an adenovirus genome comprising (i) a heterologous nucleotide sequence that encodes a lysosomal acid

.alpha.-glucosidase, and (ii) one or more deletions in the 100K region, wherein the deletion(s) essentially prevents the expression of a functional 100K protein from the deleted region.

9. The method of claim 8, wherein the lysosomal acid .alpha.-glucosidase is a human lysosomal acid .alpha.-glucosidase.

10. The method of claim 8, wherein the subject is selected from the group consisting of avian subjects and mammalian subjects.

11. The method of claim 10, wherein the subject is a human subject.

12. The method of claim 8, wherein the adenovirus is administered by a method selected from the group consisting of transdermal, intravenous, subcutaneous, intradermal, intramuscular, and intraarticular administration.

13. The method of claim 8, wherein the adenovirus is delivered to the liver by a method selected from the group consisting of intravenous administration, intraportal administration, intrabiliary administration, intra-arterial administration, and direct injection into the liver parenchyma.

14. The method of claim 8, wherein the adenovirus is administered by intravenous administration.

15. A method of treating a subject with lysosomal acid .alpha.-glucosidase deficiency, comprising administering to the subject a therapeutically-effective amount of a propagation-defective adenovirus comprising an adenovirus genome comprising (i) a heterologous nucleotide sequence that encodes a lysosomal acid .alpha.-glucosidase, and (ii) one or more deletions in the IVa2 region, wherein the deletion(s) essentially prevents the expression of a functional IVa2 protein from the deleted region.

16. The method of claim 15, wherein the lysosomal acid .alpha.-glucosidase is a human lysosomal acid .alpha.-glucosidase.

17. The method of claim 15, wherein the subject is selected from the group consisting of avian subjects and mammalian subjects.

18. The method of claim 17, wherein the subject is a human subject.

19. The method of claim 15, wherein the adenovirus is administered by a method selected from the group consisting of transdermal, intravenous, subcutaneous, intradermal, intramuscular, and intraarticular administration.

20. The method of claim 15, wherein the adenovirus is delivered to the liver by a method selected from the group consisting of intravenous administration, intraportal administration, intrabiliary administration, intra-arterial administration, and direct injection into the liver parenchyma.

21. The method of claim 15, wherein the adenovirus is administered by intravenous administration.

22. A method of treating a subject with lysosomal acid .alpha.-glucosidase deficiency, comprising administering to the subject a therapeutically-effective amount of a propagation-defective adenovirus comprising an adenovirus genome comprising (i) a heterologous nucleotide sequence that encodes a lysosomal acid .alpha.-glucosidase, and (ii) one or more deletions in the preterminal protein region, wherein the deletion(s) essentially prevents the expression of a functional preterminal protein from the deleted region.

23. The method of claim 22, wherein the adenovirus is selected from the group consisting of AdhGAA.DELTA.pp, Ad/EF1-.alpha./hGAA.DELTA.pp,

Adh5'sGAA.DELTA.pp, and Ad/EF1-.alpha./h5'sGAA.DELTA.pp.

24. The method of claim 22, wherein the lysosomal acid .alpha.-glucosidase is a human lysosomal acid .alpha.-glucosidase.

25. The method of claim 22, wherein the subject is selected from the group consisting of avian subjects and mammalian subjects.

26. The method of claim 25, wherein the subject is a human subject.

27. The method of claim 22, wherein the adenovirus is administered by a method selected from the group consisting of transdermal, intravenous, subcutaneous, intradermal, intramuscular, and intraarticular administration.

28. The method of claim 22, wherein the adenovirus is delivered to the liver by a method selected from the group consisting of intravenous administration, intraportal administration, intrabiliary administration, intra-arterial administration, and direct injection into the liver parenchyma.

29. The method of claim 22, wherein the adenovirus is administered by intravenous administration.

30. A method of treating a subject with lysosomal acid .alpha.-glucosidase deficiency, comprising administering to the subject a therapeutically-effective amount of a propagation-effective adenovirus comprising an adenovirus genome comprising (i) a heterologous nucleotide sequence that encodes a lysosomal acid .alpha.-glucosidase, and (ii) one or more deletions in the adenovirus polymerase region, wherein the deletion(s) essentially prevents the expression of a functional polymerase protein from the adenovirus genome.

31. The method of claim 30, wherein the adenovirus is selected from the group consisting of AdhGAA.DELTA.pol, Ad/EF1-.alpha./hGAA.DELTA.pol, Adh5'sGAA.DELTA.pol, Ad/EF1-.alpha./h5'sGAA.DELTA.pol.

32. The method of claim 30, wherein the lysosomal acid .alpha.-glucosidase is a human lysosomal acid .alpha.-glucosidase.

33. The method of claim 32, wherein the subject is selected from the group consisting of avian subjects and mammalian subjects.

34. The method of claim 30, wherein the subject is a human subject.

35. The method of claim 30, wherein the adenovirus is administered by a method selected from the group consisting of transdermal, intravenous, subcutaneous, intradermal, intramuscular, and intraarticular administration.

36. The method of claim 30, wherein the adenovirus is delivered to the liver by a method selected from the group consisting of intravenous administration, intraportal administration, intrabiliary administration, intra-arterial administration, and direct injection into the liver parenchyma.

37. The method of claim 30, wherein the adenovirus is administered by intravenous administration.

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L4	L3 with l2	11	L4
L3	adenovi$	22502	L3
L2	100K or 100 K	9191	L2
L1	Adenovirus E1-complementing cell lines	7	L1

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L5	l3 and l2	2	L5
L4	L3 same l2	2	L4
L3	adenovir$	22487	L3
L2	100K with (isolated or purified)	33	L2
L1	100K with adenovir$	10	L1

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